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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,680	04/13/2006	Yasuhiro Watanabe	0707590043	4618
20277 7590 01/23/2008 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			EXAMINER ZHANG, YUANDA	
			ART UNIT 2828	PAPER NUMBER
			MAIL DATE 01/23/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/575,680

Applicant(s)

WATANABE ET AL.

Examiner

Yuanda Zhang

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 04/13/06;08/24/07;10/09/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 04/13/06, 08/24/07 and 10/09/07 is being considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe (US PG Pub 2002/0021725 A1).
5. In re claim 1, Abe discloses a two-beam semiconductor laser device comprising: a two-beam semiconductor element (laser diode 14a, shown in figure 7) having a first and a second semiconductor laser elements (LD 1 and LD2) that can be driven independently and that are formed integrally on a substrate (30); and a submount (13) having, mounted on a front part thereof, the two-beam semiconductor laser element with a light-emitting face (active layer 33 for LD1 and active layer 38 for LD2) thereof directed forward and having a first and a second electrode pads (13a) connected to electrodes of the first and second semiconductor laser element by being kept in contact therewith, wherein the first and second electrode pads are formed to extend farther

behind the two-beam semiconductor laser element (electrode 13a has been extended behind the laser diode 14a, shown in figure 8A), and are wire-bonded behind the two-beam semiconductor laser element (shown in figure 8A) (paragraph [0131] – paragraph [137]).

6. In re claim 2, Abe discloses wherein the first and second electrode pads are wire-bonded at a rear end of the submount (see figure 8A).

7. In re claim 4, Abe discloses wherein a lateral length of the submount is 400 μm or more but 700 μm or less (Figure 8B has disclosed that the two emitting point is 100 μm apart which is roughly less $\frac{1}{4}$ of the lateral length or width of the submount; therefore, the submount is more than about 400 μm).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (US PG Pub 2002/0021725 A1).

10. In re claim 3, Abe has disclosed the claimed invention except wherein a distance from the rear end of the two-beam semiconductor laser element to a position where the first and second electrode pads are wire-bonded is 300 μm or shorter. It would have been obvious to one having ordinary skill in the art at the time the invention was made

to have modified the distance between the electrode pad that are wire-bonded and rear end of the two-bam semiconductor laser element of Abe with a range of 300 μm or less, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 MPEP 2144.05 (II-A)

11. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (US PG Pub 2002/0021725 A1) in view of Honda et al (US Patent 6,885,076 B2).

12. In re claim 5, Abe has disclosed the claimed invention above except a package composed of a frame and a resin member. However, Honda et al disclose a semiconductor laser package composed of individual lead leads (lead frame 2) are put together by the insulating resin member (5) as to form a lead frame package (col. 4 lines 19-26). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the semiconductor laser device of Abe with a package composed of a frame and a resin member as taught by Honda et al in order to obtain protection for the laser element.

13. In re claim 6, Honda et al disclose wherein the two-beam semiconductor laser device is built as a three-terminal two-beam semiconductor laser device having three terminals (lead frame 2 containing three thermals 7, 6b and 8).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuanda Zhang whose telephone number is 571-270-1439. The examiner can normally be reached on Monday-Thursday, 7:30am-6:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YZ
1/17/08

MINSUN OH HARVEY
PRIMARY EXAMINER